NON-MAJOR SYSTEMS OT&E

In accordance with Title 10, U.S. Code, Section 139, paragraph (b)(3), the Director, OT&E is the principle senior management official in the DoD responsible to "monitor and review all operational test and evaluation in the Department of Defense." This includes OT&E on smaller, non-major acquisition systems. Although several non-major systems such as those directly affecting major systems and those specifically directed by Congress are under direct oversight of DOT&E, OT&E of most non-major systems are controlled by the Service OTAs.

The Service OTAs are responsible for OT&E on hundreds of small programs. The Army Test and Evaluation Command is currently working on 451 Acquisition Category (ACAT) III or below programs and Navy OPTEVFOR retains 249. The Air Force Operational Test and Evaluation Center (AFOTEC) retains 105 ACAT III programs under their cognizance. This is in addition to the numerous ACAT III programs managed by the Air Force's Air Combat Command, Air Mobility Command, and Air Warfare Center. None of the Service OTAs are adequately funded for this work. With priority often going to the higher profile major acquisitions, the OTAs must balance many competing demands for very scarce resources.

These small programs represent some of the best examples of integrated T&E demonstrating effective processes to more rapidly field new military equipment. Often these processes are aggressive applications of the Secretary's themes we have urged now for four years—early involvement by the operational testers, combining DT with OT, and combining testing and training. We are using successful examples from smaller programs to encourage the larger major system acquisitions to take advantage of the benefits of these themes.

One example of non-major system OT&E reported this year was the SABER 203. This was the only non-major system T&E activity in support of a full-rate production decision reported by AFOTEC in FY99. A description of the T&E conducted by AFOTEC follows.

System Description. The SABER 203 is a rifle-mounted, glare-producing, continuous-wave laser illuminating, physical security device. It is self-contained in a 40-millimeter diameter cartridge that fits into the integrated M-16/M-203 rifle and grenade launcher.

Test Concept/Methodology. The SABER 203 was evaluated by AFOTEC security force personnel in a simulated operational environment at Kirtland AFB, NM (August 5-20, 1998). They evaluated the system's capability to provide a non-lethal deterrent for protection of USAF assets against adversarial forces in a variety of operational scenarios. In 235 test events, test participants deployed, assembled, and operated the SABER 203 during day and night hours and in a simulated chemical warfare environment. They concurrently collected system effectiveness and suitability test data.

Notable Results. The SABER 203 system was not operationally effective. The SABER 203 did not provide a non-lethal deterrent in support of security force operations during day or night use. It provided no glare effect during daytime and had minimal visual obscurity with no disorientation. The SABER 203 operators' positions were compromised at night. The SABER 203 was not operationally suitable. The operational readiness of the SABER 203 did not support security force operations. Training and technical manuals were not adequate to operate and maintain the system. The SABER 203 hardware was survivable in the intended operational environment.

Contribution/Influence IOT&E had on the Production Decision. The test supported a Milestone III decision; the program was shelved based on the test results. However, IOT&E results demonstrated that use of laser illumination has significant potential as a non-lethal application for reducing an adversary's capabilities and confrontation management during peacekeeping and humanitarian operations. The systems program office and user pursued other options; they currently have a developmental test scheduled for a commercial item similar in nature to the SABER 203.

Lessons Learned/Test Limitations. Safety was a prime consideration in the SABER 203 employment. Human use protocols approved by the Air Force Surgeon General were strictly adhered to during the IOT&E. The sensitive nature of using a laser system for intentionally illuminating human subjects required that the potential hazards be carefully assessed by optical systems and biological measurements. The extremely close coordination with the Air Force Human Systems Research Laboratory at Brooks AFB, TX was critical to the safe conduct of the test. AFOTEC intends to use this expertise in future tests of this nature.

The following tables document some of the other non-major systems OT&E activities conducted by the Service OTAs. (These tables are limited to those T&E activities reported in FY99 that were intended to support full-rate production decisions).

NAVY					
SYSTEM NAME	**ACAT**	**TEST DATES**	**EFFECTIVE**	**SUITABLE**	**SURVIVABLE**
OSIS Baseline Upgrade Evolutionary Development System (OED)	III	06 & 10/98	YES	YES	N/A
MK 53 Decoy Launching System (Nulka)	III	08/98	Unable to Determine	YES – In DD963 class	N/A
MJU-49/B Decoy Device	III	06-07/98	YES	YES	N/A
Meteorological Mobile Facility Replacement	IVT	05-06/98	YES	YES – with Limitations	N/A
Aviation Data Management System/Integrated Info System (CV/CVN variant)	IVT	11/98	YES	YES	N/A
Air Deployed Active Receiver (ADAR)	IVT	11-12/98	YES – In an S-3B aircraft	YES – In an S-3B aircraft	N/A
AN/AAR-47 Missile Warning System	IVT	02-10/98	YES	YES	N/A
S-3B Co-Processor Memory Unit (AN/AYK-23)	IVT	12/98-09/99	YES	YES	N/A
P-3 AN/ALR-66B (V)3 Small World Library	IVT	02-06/99	YES	YES	N/A
P-3C AN/USQ-78A Acoustic Processor	III	03-07/99	YES	YES	N/A

ARMY					
SYSTEM NAME	**ACAT**	**TEST DATES**	**EFFECTIVE**	**SUITABLE**	**SURVIVABLE**
Aircrew Protective Mask M45	III	Various	YES	YES	YES
Analyzer, Local-Wide Area Network, TS-4511	III	3 events, 08-10/98	YES with Limitation	YES with Limitation	TBD
Family of Loudspeakers, Manpack Version	III	03-07/98	NO	YES	YES
Improved Chemical Agent Monitor (I-CAM)	III	04-07/98	YES	YES	YES
Integrated System Control (ISYSCON)	III	03 and 09-10/98	YES	NO	Not Determined
Laundry Advanced System (LADS)	III	Various	YES with Limitation	YES	NO
Lightweight Maintenance Enclosure (LME)	III	04-05/98	YES	YES	N/A
Modern Burner Unit	III	09 & 12/99	YES	YES	N/A
Radar Test Set, Identification Friend-or-Foe, AN/UPM-155	III	Various	YES with Limitation	YES with Limitation	N/A
Replacement Satellite Configuration Control Element (RSCCE)	III	08-09/98	YES	Not Determined	N/A
Shoulder-Launched Multipurpose Assault Weapon – Disposable (SHAW-D), Bunker Defeat Munition (BDM)	IV	Various	YES	YES	YES
60 Ft Small Tug, (ST) 900class	III	06-07/99	YES	YES	YES

MARINE CORPS					
SYSTEM NAME	**ACAT**	**TEST DATES**	**EFFECTIVE**	**SUITABLE**	**SURVIVABLE**
Remote Landing Site Tower	IV	05-06/98	NO	YES	N/A
Marine Electronic Warfare Support System – PIP	IV	06-08/98	NO	NO	N/A

Notes:

1) MCOTEA and OPTEVFOR do not break out Survivability for separate treatment. Survivability is addressed as a component of Operational Effectiveness.

2) Operational Effectiveness and Suitability findings above were reflective of the system at the time of test. The system presented for the Milestone III full-rate production decision often has changes incorporated as a result of the IOT&E experience.